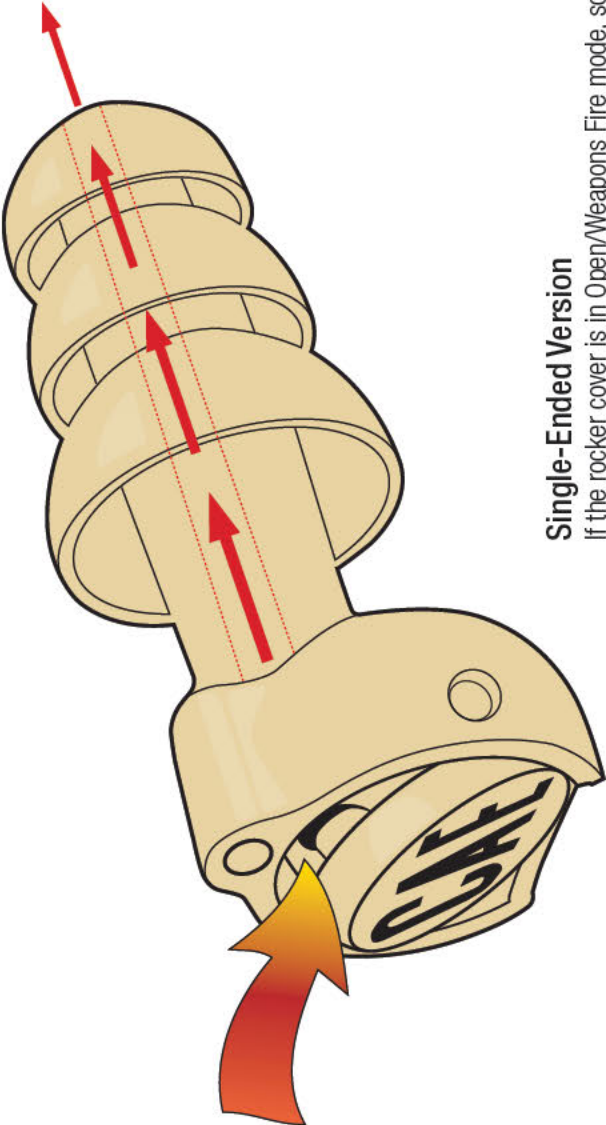


EXHIBIT A

Explanation of the Hear-Through™ Protection
Utilized by the Combat Arms™ Earplugs



Single-Ended Version

If the rocker cover is in Open/Weapons Fire mode, sound travels into the earplug and down the sound channel to the special filter. The filter allows lower-level sounds to pass with limited interruption but high-level impulsive noises are restricted. The more intense the impulse, the more it is limited.

Dual-Ended Version

Sound travels into the opening at the middle of the earplug and down the sound channel to the special filter. The filter allows lower-level sounds to pass with limited interruption but high-level impulsive noises are restricted. The more intense the impulse, the more it is limited.

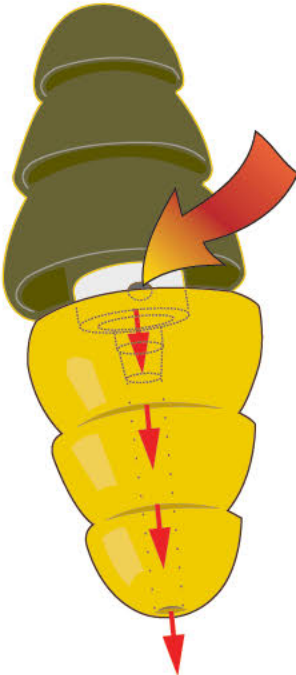


Exhibit A



Single-Ended Combat Arms™

Product Code	NSN #	Description	Minimum Purchase Info	Case Quantity	Case Dimensions L x W x H (in.)	Case Wt. (lbs.)	NRR (Open)	NRR (Closed)
370-1030	6515-01-576-8837	Single-Ended CAE (small)	1 Case	50 pair	7.725 x 6.50 x 9.25	1.39	7 dB	23 dB
370-1031	6515-01-576-8861	Single-Ended CAE (regular)	1 Case	50 pair	7.725 x 6.50 x 9.25	1.39	7 dB	23 dB
370-1032	6515-01-576-8869	Single-Ended CAE (large)	1 Case	50 pair	7.725 x 6.50 x 9.25	1.41	7 dB	23 dB

ATTENUATION DATA (ANSI S3.19-1974)

Single-Ended Combat Arms - Open/Weapons Fire mode

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA CLASS
Mean Attenuation dB	4.1	4.5	11.0	18.7	24.9	29.8	25.8	18.7	26.5	7	C
Standard Deviation dB	2.7	2.8	3.9	3.2	3.3	2.7	3.3	3.6	3.3		

Single-Ended Combat Arms - Closed/Constant Protection mode

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA CLASS
Mean Attenuation dB	30.3	28.7	32.2	31.9	31.7	38.0	35.1	31.9	37.8	23	BL
Standard Deviation dB	3.4	3.9	3.4	3.8	3.0	4.4	4.8	5.4	4.3		

Dual-Ended Combat Arms™

Product Code	NSN #	Description	Minimum Purchase Info	Case Quantity	Case Dimensions L x W x H (in.)	Case Wt. (lbs.)	NRR (Green End)	NRR (Yellow End)
370-1000	6515-01-486-2710	Bulk CAE Dual-End	1 Case	50 pair	6.75 x 6.50 x 5.25	0.48	22 dB	0 dB
370-1011	Not Applicable	CAE Blister Pack	1 Case	10 blister pks	8.25 x 6.00 x 8.00	1.98	22 dB	0 dB

ATTENUATION DATA (ANSI S3.19-1974)

Dual-Ended Combat Arms - Weapons Fire mode (yellow end)

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA CLASS
Mean Attenuation dB	4.7	4.2	6.0	9.5	16.7	18.6	16.3	16.7	17.2	0	None
Standard Deviation dB	4.0	4.3	5.0	6.7	4.9	5.7	5.8	6.1	6.8		

Dual-Ended Combat Arms - Constant Protection mode (green end)

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA CLASS
Mean Attenuation dB	32.7	31.8	33.0	32.0	34.5	37.3	38.9	43.8	43.3	22	AL
Standard Deviation dB	5.9	6.1	6.5	5.5	4.1	5.3	6.1	6.7	6.9		



Occupational Health & Environmental Safety Division
3M Center
St. Paul, MN 55144-1000
www.3M.com

For More Information:
Sales Assistance: 1-800-328-1667
Technical Assistance: 1-800-243-4630
Website: www.3M.com/OccSafety

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Designed for Combat

Designed to Meet the Unique Demands of the Armed Forces

The level-dependent technology used in the earplug (and the earplug itself) has been tested on human subjects and found to be protective at 190 dBp for at least 100 exposures (sufficient to cover the loudest weapons in the military inventory, including shoulder-fired rockets). The earplug sizing options for the single-ended Combat Arms™ accommodate 98% of the adult population's earcanals for proper fit. There is a 100% product testing protocol for impedance characteristics. Combat Arms earplugs do not require batteries and include convenient retention cords. The single-sided versions feature an in-ear switching mechanism for the user to toggle between impulse noise and steady state noise hazards (23 dB NRR in the Constand Protection mode).

Dual-Ended Combat Arms™ Earplugs

- Original patented dual-protection design
- Designed to allow wearer to hear low-level sounds
- High-impulse noise attenuated quickly
- Premolded triple-flange-design fits most earcanals
- Comfortable and reusable
- No batteries required



Uncorded dual-ended version.
Optional cord available.
NSN #: 6515-01-466-2710

You Protect Us. We Protect You.



Single-Ended Combat Arms™ Earplugs

- Deployed in recent Rapid Fielding Initiatives
- Designed to allow wearer to hear low-level sounds
- High-impulse noise attenuated quickly
- Three sizes of triple-flange-design fits most earcanals
- Comfortable and reusable
- No batteries required



Small tip NSN #: 6515-01-576-8837

Large tip NSN #: 6515-01-576-8869



Regular tip NSN #: 6515-01-576-8861

Patented Dual-Protection Design

Open/Weapons Fire Mode: this earplug's patented design gives wearers a better ability to hear low-level sounds critical to mission safety – conversation, footsteps, rifle bolts. When needed, the plug's filter provides attenuation of high level noises like weapons fire and explosions.

Closed/Constant Protection Mode: for attenuation of constant noise (aircraft, armored vehicles, etc.) without hear-through.

FAQ

FREQUENTLY ASKED QUESTIONS ABOUT THE (single-ended) COMBAT ARMS™ EARPLUGS

When is the Combat Arms Earplug (CAE) in the Weapons Fire mode and when is it in the Constant Protection mode?
When the rocker cover exposes the hole, you are in the Weapons Fire mode. In the closed position, the earplug is in the Constant Protection mode.

When do I set the rocker cover for either Open/Weapons Fire or Closed/Constant Protection?
If you are firing a weapon (in training or in combat) and you have to maintain situational awareness and hear verbal communication, set the rocker cover in the Open/Weapons Fire mode. For steady/continuous noise, like in a helicopter or tracked vehicle, set the rocker cover in the Closed/Constant Protection mode. You will be protected from weapons fire in either mode, but only from steady/continuous noise in the Closed mode.

How does the CAE protect my hearing from weapons fire or explosions in the Open/Weapons Fire mode?
The blast energy (impulse noise) must pass through two calibrated holes that filter the more hazardous sound energy. Think of the reduction of this sound energy as sound friction which increases as the impulse noise becomes louder. Meanwhile, lower level sounds like conversation get through the filter relatively unchanged.

How protective is the CAE in the Open/Weapons Fire mode?
When properly inserted, Army studies found the plug protective for impulse noise (weapons fire and explosions) up to 193 dBp. That covers the loudest weapons in the inventory at the firer's position.

Why does weapons fire sound louder in the Open/Weapons Fire mode than the Closed/Constant Protection mode?
More low-frequency sound energy, which is not as hazardous to hearing as high-frequency sound, gets through in the Open position.

How do I determine the correct size?
It is essential that someone with the appropriate training fits you with the correct size. Sizes are color-coded – small (olive drab), medium (tan) and large (brown). An ear gage will provide an approximation of the correct size, but the insertion of a trial earplug is needed to confirm. A recommended sizing distribution for a military population would be 25% small, 60% medium and 15% large. Approximately 1% will require a different size in each ear. There will be a shift toward the smaller sizes for females, African Americans and younger personnel. Conversely, there is a shift toward the larger sizes for Caucasian males.

As long as it stays in my ear, will any size work? What's the problem if the size is a little off?
You want these earplugs to be tough on noise, not your ears. For your own comfort and maximum protection, you want the size that fits best. The correct size also keeps the ear sealed without having to constantly reinsert the plug.

How do I insert the earplug properly and know when it is in correctly?
Reach behind your head and pull your ear out to straighten the earcanal; insert the earplug with your free hand. Gently tug on the earplug for a required tension. Your own voice will also sound low-toned, muffled even more so in the Closed mode. If the plugs do not appear to be blocking any sound, try again to reinsert them. If they still do not appear to be working, have a person trained in earplug fitting recheck you for the correct size. Remember, if you don't have them in correctly, you might as well not have them in at all.

What is the best way to clean the earplug?
Use plain soap and water only, no harsh chemicals or detergents. Ensure the soap is thoroughly rinsed off so no holes are clogged. For best results, separate the plug from the plastic housing and clean the plug separately.

How do I know when to replace the Combat Arms earplug?
Replace if the plug flanges become torn, harden or cannot be cleaned, or if the plastic housing is damaged.

How should I store the earplug?
When not in use, keep in the plastic case provided or tie the cords to the helmet webbing for quick access.

Can I remove the cord?
Yes, it just snaps off. Note: the cord cannot be re-attached.

Are any other modifications to the CAE recommended?
None are recommended. Any other modifications could degrade the ability of the earplug to protect you from hazardous noise and/or interfere with your ability to maintain situational awareness and hear verbal communications.



COMBAT ARMS®

★ EARPLUGS ★

- **YELLOW END - LETS WEARERS HEAR CLEARLY, WITH INSTANT PROTECTION AGAINST WEAPON NOISE**
- **GREEN END - CONSTANT PROTECTION AGAINST CONSTANT NOISE (NRR 22)**

Small, faint text at the bottom right of the page, likely a barcode or product identification number.



COMBAT ARMS® MAY BE
PURCHASED IN BULK
(50 PAIR/CASE)
NSN #: 6615-01-466-2710
AEARO® PART #: 370-1000

511 270



COMBAT ARMS®
★ **EARPLUGS** ★

E-A-R® Combat Arms® Earplugs were specifically designed to address the unique hearing protection needs of the armed forces.

The yellow tip end should be inserted only when ambient noise levels are not hazardous and the wearer wants Hear-Through® capability with instant protection from impulse noises (i.e., weapons fire or explosive devices). This earplug tip (yellow) incorporates a patented technology designed for, tested and used by the US military to allow clear hearing during non-hazardous noise and instant protection against impulse noises such as weapons fire. Noise reduction increases with sound level for impulsive noise such as weapons fire above 110 dB. Estimated attenuation ranges from approximately 0 to 22 dB.

The green tip end should be inserted when continuous hazardous noise is present and if it is determined that the attenuation reduces the hazardous noise to a safe level as determined by a qualified professional. This earplug tip (green) provides continuous noise reduction to ambient noises such as aircraft, armored vehicles or machinery.

GREEN STEADY STATE END

Noise Reduction Rating	22 Decibels
(When used as directed)	
THE RANGE OF NOISE REDUCTION RATINGS FOR EXISTING HEARING PROTECTORS IS APPROXIMATELY 0 TO 30 (HIGHER NUMBERS DENOTE GREATER EFFECTIVENESS)	
Aearo Technologies Indianapolis, IN	Model: Combat Arms
Federal law prohibits removal of this label prior to purchase	EPA LABEL REQUIRED BY U.S. E.P.A. REGULATION

YELLOW LEVEL DEPENDENT END

Noise Reduction Rating	0 Decibels
(When used as directed)	
THE RANGE OF NOISE REDUCTION RATINGS FOR EXISTING HEARING PROTECTORS IS APPROXIMATELY 0 TO 30 (HIGHER NUMBERS DENOTE GREATER EFFECTIVENESS)	
Aearo Technologies Indianapolis, IN	Model: Combat Arms
Federal law prohibits removal of this label	EPA LABEL REQUIRED BY U.S. E.P.A. REGULATION

(1) 2TV54



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